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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,375	01/04/2001	Eckhard Puerkner	646-115	4059

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EXAMINER	
GOFF II, JOHN L	

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/700,375	PUERKNER ET AL.	
	Examiner	Art Unit	
	John L. Goff	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 June 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,13-15,18,26,28-30 and 32-54* is/are pending in the application.

4a) Of the above claim(s) *38,43,48 and 54* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1,13-15,18,26,28-30,32-37,39-42,44-47 and 49-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the amendment filed on 6/7/04. The previous claim objections have been overcome.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

3. Applicant's traversal of the election by original presentation set forth in the previous Office Action is acknowledged. The traversal is on the ground(s) that no serious search burden was imposed on the Examiner. This is not found persuasive because the newly submitted claims were properly restricted as the new claims were directed to a patentably distinct species, i.e. ionic polyurethanes, wherein prior to the amendment at least claim 18 required nonionic polyurethanes, it being further noted **upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141.**

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102/103

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 13-15, 18, 26, 28-30, 32-37, 39-42, 44-47, and 49-53 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Fischer et al. (WO 94/13726 with U.S. Patent 6,339,735 used as a translation).

Fischer et al. disclose water-soluble hot melt adhesives comprising one or more nonionic polyurethanes useful for bonding paper, wall coverings, labels, etc (Column 2, lines 37-40 and Column 3, lines 12-13 and Column 6, lines 1-5). Fischer et al. teach the polyurethane hot melt adhesives are formed from reaction mixtures comprising at least one polyisocyanate (NCO-terminated oligomer), e.g. tetramethyl xylylene diisocyanate (TMXDI), and a polyol, e.g. polyethylene glycol (polyalkylene glycol) or copolymer of ethylene oxide (polyalkylene oxide), and Fischer et al. teach the mixture may further comprise hydrophobic diols, e.g. 1, 10-decanediol, 1,12-dodecanediol, etc., or amines (Column 3, lines 18-65 and Column 4, lines 1-54 and Column 5, lines 1-25 and the examples). Fischer et al. teach the polyurethane adhesives have a molecular weight greater than 10,000, melt viscosities greater than 700 mPas, and a

cystallinity of at least 20% of the value measured for polyethylene glycol with a molecular weight of 6,000 (Column 2, lines 45 and 60-64 and Column 5, lines 54-62).

Regarding claims 1, 14, 26, and 29, Fischer et al. are silent as to measuring all specific properties of the adhesives such as solubility, upper cloud point, and open time. However, it is noted that at least the first example taught by Fischer et al. teach a polyurethane adhesive comprising the same materials, i.e. polyethylene glycol and TMXDI, as the example taught in applicants specification such that it appears it would intrinsically flow that the polyurethane hot melts taught by Fischer et al. have the claimed values for the specific adhesive properties. Furthermore, it is noted Fischer et al. teach a number of polyisocyanates and polyols that correspond with those taught by applicant (See Column 3, lines 12-67 and Column 4, lines 1-54 of Fischer et al. and page 10-13 of applicants specification) such that one of ordinary skill in the art at the time the invention was made would have readily expected that the polyurethane hot melt adhesives taught by Fischer et al. would have intrinsically had the specified properties. It should be noted that the office is not equipped to perform processes of the prior art and obtain products and test the same. Applicant is advised that as such there appears to be sufficient evidence provided to shift the burden upon applicant to test to show that the prior art composition does not possess the related properties.

Regarding claims 1, 26, 32, 39, 40, and 44, Fischer et al. teach using the water-soluble hot melt adhesive to bond paper which would have encompassed hygiene papers such as paper towels. In any event, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the water-soluble hot melt adhesive taught by Fischer et al. to bond

hygiene papers together as Fischer et al. are generally directed to the bonding of paper and only the expected results would be achieved.

Claim Rejections - 35 USC § 103

6. Claims 1, 13-15, 18, 26, 28-30, 32-37, 39-42, 44-47, and 49-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (Specification pages 1-3) in view of either one of Fischer et al. or Chem KK (JP 54-1347 and the English translation).

The admitted prior art discloses it is well known in the art to bond together hygiene papers using a water-soluble adhesive. The admitted prior art teaches that while it is advantageous/desirable for the adhesive to be completely water-soluble, the admitted prior art is silent as to a particular adhesive that is completely water-soluble (Page 1, lines 22-26 and Page 2, lines 1-5 and 19-30 and Page 3, lines 1-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the water soluble adhesive taught by the admitted prior art any of the well known and conventional adhesives in the art that are completely water soluble such as those suggested by either one of Fischer et al. or Chem KK as only the expected results would be achieved.

Regarding claims 1, 14, 15, 26, 29, and 30, the admitted prior art as modified by either one of Fischer et al. or Chem KK are silent as to measuring all specific properties of the adhesives such as solubility, upper cloud point, and open time. However, it is noted that at least the first example taught by Fischer et al. teach a polyurethane adhesive comprising the same materials, i.e. polyethylene glycol and TMXDI, as the example taught in applicants specification such that it appears the polyurethane hot melts taught by the admitted prior art as modified by

Fischer et al. have the claimed values for the specific adhesive properties. Furthermore, it is noted both Fischer et al. and Chem KK teach a number of polyisocyanates and polyols that correspond with those taught by applicant (See Column 3, lines 12-67 and Column 4, lines 1-54 of Fischer et al. and Page 2, lines 16-20 and Page 3, lines 1-7 of Chem KK English translation and page 10-13 of applicants specification) such that one of ordinary skill in the art at the time the invention was made would have readily expected that the polyurethane hot melt adhesives taught by the admitted prior art as modified by either one of Fischer et al. or Chem KK would have intrinsically had the specified properties. It should be noted that the office is not equipped to perform processes of the prior art and obtain products and test the same. Applicant is advised that as such there appears to be sufficient evidence provided to shift the burden upon applicant to test to show that the prior art composition does not possess the related properties.

Fischer et al. is described in full detail above.

Chem KK disclose completely water-soluble hot melt adhesives comprising one or more nonionic polyurethanes useful for bonding together cotton, jute, cloth, etc. Chem KK teach the polyurethane hot melt adhesives (molecular weight greater than 7,000) comprise at least one polyisocyanate (NCO-terminated oligomer), e.g. trimethyl hexamethyl diisocyanate, and a polyol, e.g. polyoxyalkylene glycol (polyalkylene glycol) having a molecular weight of 400-10,000, and Chem KK teach the polyurethane may further comprise hydrophobic diols, e.g. propylene glycol, or monofunctional amines (Page 2, lines 12-20 and Page 3, lines 15 and the example).

Response to Arguments

7. Applicant's arguments filed 6/7/04 have been fully considered but they are not persuasive.

Applicant argues Fischer et al. do not disclose the claimed solubility and upper cloud point parameters, and applicant states if it the Examiner's position that Fischer et al. teach these parameters the Examiner is asked to identify where they are disclosed in Fischer et al. by column and line number.

The previous Office Action stated,

"Regarding claims 1, 14, 26, and 29, Fischer et al. are silent as to measuring all specific properties of the adhesives such as solubility, upper cloud point, and open time. However, it is noted that at least the first example taught by Fischer et al. teach a polyurethane adhesive comprising the same materials, i.e. polyethylene glycol and TMXDI, as the example taught in applicants specification such that it appears it would intrinsically flow that the polyurethane hot melts taught by Fischer et al. have the claimed values for the specific adhesive properties. Furthermore, it is noted Fischer et al. teach a number of polyisocyanates and polyols that correspond with those taught by applicant (See Column 3, lines 12-67 and Column 4, lines 1-54 of Fischer et al. and page 10-13 of applicants specification) such that one of ordinary skill in the art at the time the invention was made would have readily expected that the polyurethane hot melt adhesives taught by Fischer et al. would have intrinsically had the specified properties. It should be noted that the office is not equipped to perform processes of the prior art and obtain products and test the same. Applicant is advised that as such there appears to be sufficient evidence provided to shift the burden upon applicant to test to show that the prior art composition does not possess the related properties."

Thus, it is readily admitted Fischer et al. do not disclose by column and line the claimed solubility, upper cloud point, and open time parameters. However, in view of the examples and disclosure of both Fischer et al. and applicants examples and specification it appears these parameters are intrinsic, and applicant has not attempted to challenge by way of experiment or argument this assertion such that this position is maintained.

Applicant further argues Fischer et al. do not disclose the production of two-ply paper or the claimed hygiene paper.

As noted above, Fischer et al. teach using the water-soluble hot melt adhesive to bond paper which would have encompassed hygiene papers such as paper towels. In any event, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the water-soluble hot melt adhesive taught by Fischer et al. to bond hygiene papers together as Fischer et al. are generally directed to the bonding of paper and only the expected results would be achieved.

Applicant further argues the admitted prior art in the application simply discloses the disadvantages of water-soluble adhesives.

As noted above, the admitted prior art discloses it is well known in the art to bond together hygiene papers using a water-soluble adhesive. The admitted prior art teaches that while it is advantageous/desirable for the adhesive to be completely water-soluble, the admitted prior art is silent as to a particular adhesive that is completely water-soluble. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the water soluble adhesive taught by the admitted prior art any of the well known and conventional adhesives in the art that are completely water soluble such as those suggested by either one of Fischer et al. or Chem KK as only the expected results would be achieved, it being noted Fischer et al. disclose a water-soluble adhesive for bonding paper and Chem KK disclose a water-soluble adhesive for bonding materials similar/analogous to paper (e.g. cotton, jute, cloth, etc.).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John L. Goff

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